



# Safety Data Sheet

Issuing Date 02-Feb-2012

Revision Date 09-Oct-2014

Version 2

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product name** Sierra Synthetic Blend NMMA FC-W 25W-40 Motor Oil

### Other means of identification

**Product Code(s)** 18-9440-2, 18-9440-2R, 18-9440-3, 18-9440-3R, 18-9440-4, 18-9440-4R, 18-9440-7, 18-9440-8

**Synonyms** No information available

### Recommended use of the chemical and restrictions on use

**Recommended Use** Engine oil, Lubricant.

**Uses advised against** All Other Uses

### Details of the supplier of the safety data sheet

#### **Distributor**

Sierra International  
1 Sierra Place  
Litchfield, IL 62056  
TEL: 217-324-9487

### Emergency telephone number

**Company Emergency Phone Number** (618) 542-5431

**Emergency telephone number** Chemtrec 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

### Label elements

#### EMERGENCY OVERVIEW

**Appearance** Amber colored liquid

**Physical state** viscous liquid

**Odor** Mild petroleum odor

### Hazards not otherwise classified (HNOC)

#### Other information

• Toxic to aquatic life

Unknown Aquatic Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Common Name** Hydrocarbon Lubricating Fluid.  
**Chemical Family** Petroleum hydrocarbon mixture.

Chemical name	CAS-No	Weight %	Trade secret
Petroleum distillates, hydrotreated heavy paraffinic	64742-54-7	86.9	*
Mineral Oils	MIXTURE	0-8.5	*
Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate)	2215-35-2	0.49-0.98	*
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	84605-29-8	0.1-0.48	*
Phenol, dodecyl-, branched	121158-58-5	0.01-0.09	*
Diphenylamine	122-39-4	0.01-0.09	*
Toluene	108-88-3	0.002	*

The mineral oil mixture contained may be described by one or more of the following: CAS No. 64742-54-7, Distillates (petroleum), hydrotreated heavy paraffinic; CAS No. 64742-65-0, Distillates (petroleum), solvent-dewaxed heavy paraffinic; CAS No. 64742-55-8, Distillates (petroleum), hydrotreated light paraffinic; CAS No. 64742-56-9, Distillates (petroleum), solvent-dewaxed light paraffinic.

#### 4. FIRST AID MEASURES

##### First aid measures

**General advice** No hazards which require special first aid measures.

**Eye contact** Flush eyes for 30 minutes with water. Get medical attention if irritation persists.

**Skin contact** Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops and persists, seek medical attention.

**Inhalation** Move exposed persons to fresh air. Consult medical personnel if breathing issues occur.

**Ingestion** Do NOT induce vomiting. Consult a physician.

##### Most important symptoms and effects, both acute and delayed

**Symptoms** No information available.

##### Indication of any immediate medical attention and special treatment needed

**Notes to Physician** Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

##### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Foam. Water can be used to keep surrounding materials cool.

**Small Fires** Always use personal safety equipment. Follow appropriate personal safety procedures, and extinguishing media.

**Large Fires** Contact emergency personnel.

**Unsuitable extinguishing media** Caution: Use of water spray when fighting fire may be inefficient.

##### Specific hazards arising from the chemical

Combustible material.

**Hazardous combustion products** Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

##### Explosion data

**Sensitivity to Mechanical Impact** None.  
**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

<b>Personal protection</b>	Avoid contact with the skin and the eyes. Eye protection or face shield should be used if material is used under conditions that increase the chances of splattering. Wash skin with soap and water if contact occurs. Launder soiled clothing. If spilled, take caution, as material can cause surfaces to become very slippery.
<b>Other information</b>	Small spill: Remove sources of heat or ignition, provide adequate ventilation, contain leak using absorbent, inert, non-combustible material. Large Spill: Contain spill, transfer to secure containers. In the event of an uncontrolled material release, the user should determine if release is reportable under applicable laws and regulations.
<b>For emergency responders</b>	Clean up area with absorbent material and place in closed containers for disposal.
<b><u>Environmental precautions</u></b>	
<b>Environmental precautions</b>	Local authorities should be advised if significant spillages cannot be contained. Do not allow material to contaminate ground water system. Keep out of waterways.

**Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Cover with earth, sand, or other non-combustible material followed with plastic sheets to minimize spreading or contact with rain.
<b>Methods for cleaning up</b>	Excess liquid material can be collected using a scoop or shovel and stored for recycling or disposal. Prevent material from entering drains or waterways.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

<b>Advice on safe handling</b>	Avoid contact with skin, eyes and clothing. Eye protection or face shield should be used if material is used under conditions that increase the chances of splattering. If contact is made, wash skin with soap and water. Launder soiled clothing. Maximum handling temperature is 70 degrees C (158 F). It is recommended to pump or transfer material at ambient temperature.
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**Conditions for safe storage, including any incompatibilities**

<b>Storage Conditions</b>	Keep away from heat and sources of ignition. Keep containers closed when not in use. Follow first aid measures if contact occurs, and spill procedures if spill occurs. For packaged material: Store in a cool dry area. For bulk material: store in cool dry area. Always follow local, state, and federal guidelines for storage of material for amount stored.
<b>Incompatible Products</b>	Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

<b>Exposure guidelines</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
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Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Diphenylamine 122-39-4	TWA: 10 mg/m <sup>3</sup>	-	TWA: 10 mg/m <sup>3</sup>
Toluene 108-88-3	TWA: 20 ppm	TWA: 200 ppm Ceiling: 300 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m <sup>3</sup> STEL: 150 ppm STEL: 560 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Controls**                      Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face Protection**                      If splashes are likely to occur, wear: Goggles. Eye/face Protection.

**Skin and body protection**                      Long sleeved clothing. Protective gloves can be worn, if material comes in contact with skin wash with soap and water.

**Respiratory protection**                      If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations**                      Remove and wash contaminated clothing before re-use.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

<b>Physical state</b>	viscous liquid	<b>Odor</b>	Mild petroleum odor
<b>Appearance</b>	Amber colored liquid	<b>Odor threshold</b>	No information available
<b>Color</b>	amber		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No information available	
Melting point/freezing point	No information available	
Boiling Point/Range	No information available	
Flash point	> 93.3 °C / > 200 °F	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific gravity	0.88	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature		
Decomposition temperature	No information available	
Kinematic viscosity	140-160 @40C cSt	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Based on similar products.

**Other information**

<b>Softening point</b>	No information available
<b>VOC Content</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available

## 10. STABILITY AND REACTIVITY

**Reactivity**

No data available

**Chemical stability**

Stable under normal conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous polymerization**      Hazardous polymerization does not occur.

**Conditions to avoid**

Excessive heat. High energy sources of ignition.

**Incompatible materials**

Strong oxidizing agents.

**Hazardous decomposition products**

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

<b>Product Information</b>	No data available
<b>Inhalation</b>	Inhalation of vapors in high concentration may cause irritation of respiratory system.
<b>Eye contact</b>	Avoid contact with eyes. Contact with eyes may cause irritation.
<b>Skin contact</b>	Repeated exposure may cause skin dryness or cracking.
<b>Ingestion</b>	Do NOT taste or swallow.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate) 2215-35-2	= 2000 mg/kg ( Rat )	> 3160 mg/kg ( Rabbit )	-
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	= 2000 mg/kg ( Rat )	> 3200 mg/kg ( Rabbit )	-
Phenol, dodecyl-, branched 121158-58-5	= 2100 mg/kg ( Rat )	= 5 mL/kg ( Rabbit )	-
Diphenylamine 122-39-4	= 1120 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	-
Toluene 108-88-3	= 2600 mg/kg ( Rat )	= 12000 mg/kg ( Rabbit )	= 12.5 mg/L ( Rat ) 4 h

**Information on toxicological effects**

**Symptoms**      No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	Mineral oils are known to cause cancer because of carcinogenic components (e.g. benzene). The mineral oil in this product is highly refined and should not be considered a carcinogen. Used lubricating oil may contain hazardous components which have the potential to cause skin cancer. Continuous long-term contact with used lubricating oils has caused skin cancer in animal tests. .

Chemical name	ACGIH	IARC	NTP	OSHA
Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7	-	Group 1	-	X
Toluene 108-88-3	-	Group 3	-	-

<b>Reproductive toxicity</b>	Contains ingredients that are suspected reproductive hazards.
<b>Developmental toxicity</b>	Contains ingredients that have suspected developmental hazards.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

#### Numerical measures of toxicity - Product Information

<b>Unknown Aquatic Toxicity</b>	0% of the mixture consists of ingredient(s) of unknown toxicity
<b>The following values are calculated based on chapter 3.1 of the GHS document .</b>	
<b>ATEmix (oral)</b>	5262 mg/kg
<b>ATEmix (dermal)</b>	5262 mg/kg

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Toxic to aquatic life

8.298% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7	-	5000: 96 h Oncorhynchus mykiss mg/L LC50	1000: 48 h Daphnia magna mg/L EC50
Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate) 2215-35-2	1.0 - 5.0: 96 h Pseudokirchneriella subcapitata mg/L EC50	25 - 50: 96 h Pimephales promelas mg/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 semi-static	4.0 - 6.0: 48 h Daphnia magna mg/L EC50
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	-	10 - 100: 96 h Pimephales promelas mg/L LC50 static 38: 96 h Pimephales promelas mg/L LC50 100: 96 h Pimephales promelas mg/L LC50 semi-static	0.1 - 1: 48 h Daphnia magna mg/L EC50
Phenol, dodecyl-, branched 121158-58-5	-	0.14: 96 h Oncorhynchus clarki mg/L LC50	-
Diphenylamine 122-39-4	1.5: 72 h Scenedesmus subspicatus mg/L EC50	3.47 - 4.14: 96 h Pimephales promelas mg/L LC50 flow-through	1.69 - 2.46: 48 h Daphnia magna mg/L EC50

Toluene 108-88-3	12.5: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 433: 96 h Pseudokirchneriella subcapitata mg/L EC50	11.0 - 15.0: 96 h Lepomis macrochirus mg/L LC50 static 14.1 - 17.16: 96 h Oncorhynchus mykiss mg/L LC50 static 15.22 - 19.05: 96 h Pimephales promelas mg/L LC50 flow-through 5.89 - 7.81: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 50.87 - 70.34: 96 h Poecilia reticulata mg/L LC50 static 12.6: 96 h Pimephales promelas mg/L LC50 static 28.2: 96 h Poecilia reticulata mg/L LC50 semi-static 5.8: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 54: 96 h Oryzias latipes mg/L LC50 static	5.46 - 9.83: 48 h Daphnia magna mg/L EC50 Static 11.5: 48 h Daphnia magna mg/L EC50
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**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

Chemical name	Partition coefficient
Diphenylamine 122-39-4	3.5
Toluene 108-88-3	2.65

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods****Waste Disposal Method**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**

Do not reuse container.

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Diphenylamine 122-39-4	(hazardous constituent - no waste number)	Included in waste streams: F039, K083, K104	-	-
Toluene 108-88-3	waste number U220	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151	-	-

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Toluene 108-88-3	-	-	Toxic waste waste number F025 Waste description: Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	-

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste Status
Diphenylamine 122-39-4	Toxic
Toluene 108-88-3	Toxic; Ignitable

#### 14. TRANSPORT INFORMATION

**DOT** Not regulated

**IATA** PETROLEUM LUBRICATING OIL; NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT UNDER ICAO TI OR IATA DGR

#### 15. REGULATORY INFORMATION

##### International Inventories

<b>TSCA</b>	Does not comply
<b>DSL/NDSL</b>	Does not comply
<b>EINECS/ELINCS</b>	Does not comply
<b>ENCS</b>	Does not comply
<b>IECSC</b>	Does not comply
<b>KECL</b>	Does not comply
<b>PICCS</b>	Does not comply
<b>AICS</b>	Does not comply

##### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

##### U.S. Federal Regulations

##### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	SARA 313 - Threshold Values %
Diphenylamine - 122-39-4	1.0
Toluene - 108-88-3	1.0

##### SARA 311/312 Hazard Categories

<b>Acute health hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No



**Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Toluene 108-88-3	1000 lb	X	X	X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Toluene 108-88-3	1 lb	-	RQ 1 lb final RQ RQ 0.454 kg final RQ

**U.S. State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical name	California Prop. 65
Toluene - 108-88-3	Developmental Female Reproductive

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Zinc O,O,O',O'-tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate) 2215-35-2	X	-	X
Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts 84605-29-8	X	-	X
Diphenylamine 122-39-4	X	X	X
Toluene 108-88-3	X	X	X

**U.S. EPA Label Information**

EPA Pesticide registration number Not Applicable

**16. OTHER INFORMATION**

<b>NFPA</b>	Health hazards 0	Flammability 1	Instability 0	Physical and Chemical Hazards -
<b>HMIS</b>	Health hazards 0	Flammability 1	Physical hazards 0	Personal protection X

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**Revision Note**

(M)SDS sections updated 1 2 3 5 6 7 9 10 11 12 13 14 15 16

**Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**